

## NAE Chapter 3 Figures

**Table 3.1** Examples of the magnitude of benefit of different on-field agricultural practices.

Practice	Contaminant	Example	Reduction in runoff or inputs	Citation
<b>In-season optimization of nitrogen application</b>	nitrogen	North Carolina wheat fields. Nitrogen needs evaluated on fields or sub- fields based upon plant growth properties	Average 15% (range 0 to 51%)	Flowers et al., 2004
<b>Polymer use in furrow irrigation systems</b>	Sediments, phosphorus	Pacific Northwest wheat and bean fields. Added supplements to irrigation water to bind sediments & phosphorus	90% for sediments, 50% for phosphorus	Lentz and Sojka, 1994; Lentz et al., 1998
<b>Changing chemical form of fertilizer</b>	phosphorus	Fertilized New Zealand pasture, slow release fertilizer vs single superphosphate	90%	Nguyen et al., 2002
		Arkansas pasture, organic vs inorganic fertilizer	41%	Nichols et al., 1994; Hart et al., 2004
<b>Optimization of applied irrigation water</b>	nitrate	Lettuce irrigation, Salinas Valley	75% for nitrate	Tanji et al., 1994
<b>Budgeting to reduce excess fertilizer application</b>	nitrogen phosphorus	Netherlands	25% for nitrogen 15% for phosphorus	Oenema et al., 2005
<b>Controlled drainage in tile-drained fields</b>	nitrogen	Ohio	45% for nitrate	Fausey, 2005
		Ontario, maize with ryegrass intercrop	46% for nitrogen 49% when used with conservation tillage	Drury et al., 1996
		Ontario, maize	36% for nitrate	Ng et al., 2002
<b>Hay Mulching</b>	nitrogen, phosphorus,	New Brunswick potato field	72-82%	Rees et al., 2002

**Table 3.2** Examples of the magnitude of the benefit of different off-field management practices

Type of Control	Runoff reduction	Citation
Vegetated Buffer 7m grass buffer 7 meter grass buffer plus 9 meter wooded riparian zone Iowa	95% sediment 60% nitrogen and phosphorus 97% sediment 80% nitrogen and phosphorus	Schultz, 2004
Three-zone buffer grass to wooded riparian zone, Georgia	78% nitrate 52% ammonium 66% phosphorus	Vellidis et al., 2003
Constructed wetlands to receive water from tile- drained fields Illinois 3 to 6% of drained area	46% nitrogen, 2% phosphorus	Kovacic et al., 2000

**Table 3.3** External trade of EU 15 in 2002 in eight selected products

	% of world trade 2002	
	Imported by EU	Exported by EU
<b>Total cereals (except rice)</b>	8.6	8.3
<b>Feed Grain (except rice)</b>	4.5	4.9
<b>Oil Seeds (by weight produced)</b>	32.2	1.6
<b>Wine</b>	28.3	38.5
<b>Sugar</b>	5.8	11.0
<b>Total Milk</b>	13.5	20.3
<b>Total Meat</b>	8.0	13.9
<b>Eggs</b>	4.7	16.7

**Table 3.4** Market shares of agricultural co-operatives in the EU-15

Country	Dairy	Fruit & vegetables	Meat	Grain
Belgium	50	70-90	20-30	
Denmark	93	20-25	66-93	87
Germany	55-60	60	30	
Greece	20	12-51	5-30	49
Spain	35	15-40	20	20
France	49	35-50	27-88	75
Ireland	100		30-70	69
Italy	38	41	10-15	15
Luxembourg	80		25-30	70
Netherlands	82	70-96	35	
Austria	90		50	60
Portugal	83-90	35		
Finland	94		68	
Sweden	99	60	79-81	75
UK	98	35-45	20	20

**Table 3.5** Employment by major economic sectors in a selection of countries in the NAE. Source: UNECE, 2005.

	Year	Agriculture	Industry	Services
Austria	2003	13.1	23.6	63.2
Canada	2002	3.0	21.7	75.3
Czech Republic	2003	4.5	39.4	56.1
Denmark	2003	3.7	21.9	74.3
Estonia	2003	6.1	32.3	61.5
Finland	2003	5.1	26.0	68.9
France	2003	4.1	21.7	74.3
Georgia	2002	53.8	8.2	38.0
Germany	2003	2.4	27.2	70.3
Greece	2003	14.7	24.3	61.7
Hungary	2003	5.8	31.9	62.3
Italy	2003	4.4	29.0	66.5
Netherlands	2003	3.3	19.0	77.7
Poland	2003	18.4	28.6	53.0
Romania	2003	34.1	31.0	34.9
Russian Federation	2002	12.1	30.1	57.8
Spain	2003	5.7	29.1	65.3
Sweden	2003	2.3	22.8	74.9
Turkey	2002	32.8	23.9	43.3
Ukraine	2003	23.1	25.6	51.2
United Kingdom	2003	0.9	18.7	80.6
United States	2001	2.5	18.8	78.7

**Table 3.6** Urban and rural populations in NAE. Source: Population of the United Nations Secretariat, 2005

Country	Population distribution (%), 2004		Average annual rate of change in population (%), 2000-2005	
	Urban	Rural	Urban	Rural
Austria	66	34	0.05	0.05
Czech Republic	74	26	0.02	0.45
Denmark	85	15	0.34	-0.37
Estonia	70	30	-1.04	-1.23
Finland	61	39	0.10	0.31
France	76	24	0.72	-0.34
Georgia	52	48	-1.38	-0.42
Germany	88	12	0.28	-1.48
Greece	61	39	0.56	-0.52
Hungary	66	34	0.14	-1.57
Italy	67	33	-0.01	-0.28
Netherlands	66	34	1.25	-0.94
Poland	62	38	0.04	-0.27
Romania	55	45	-0.20	-0.26
Spain	77	23	0.32	-0.13
Sweden	83	17	0.12	-0.07
Turkey	67	33	2.19	-0.07
UK	89	11	0.38	-0.26
USA	80	20	1.44	-0.63

**Table 3.7** Obesity and overweight among adults in a sample of countries within European Union. Sources and references are from the IOTF database (© International Obesity Task Force, London – March 2005)

Country	Year of Data Collection	Males			Females		
		% BMI 25-29.9	%BMI ≥30	Combined BMI≥25	% BMI 25-29.9	%BMI ≥30	Combined BMI>25
<b>Czech Republic</b>	1997/8	48.5	24.7	73.2	31.4	26.2	57.6
<b>Denmark</b>	1992	39.7	12.5	52.2	26	11.3	37.3
<b>England</b>	2003	43.2	22.2	65.4	32.6	23	55.6
<b>Finland</b>	1997	48	19.8	67.8	33	19.4	52.4
<b>France</b> (self report)	2003	37.4	11.4	48.8	23.7	11.3	35
<b>Germany</b>	2002	52.9	22.5	75.4	35.6	23.3	58.9
<b>Greece</b>	1994-8	51.1	27.5	78.6	36.6	38.1	74.7
<b>Hungary</b>	1992-4	41.9	21	62.9	27.9	21.2	49.1
<b>Italy</b> (self report)	1999	41	9.5	50.5	25.7	9.9	35.6
<b>Latvia</b>	1997	41	9.5	50.5	33	17.4	50.4
<b>Netherlands</b>	1998-2002	43.5	10.4	53.9	28.5	10.1	38.6
<b>Poland</b> (self report)	1996	n/a	10.3	n/a	n/a	12.4	n/a
<b>Spain</b>	1990-4	47.4	11.5	58.9	31.6	15.3	46.9
<b>Sweden</b> (adjusted)	1996-7	41.2	10	51.2	29.8	11.9	41.7

Age range and year of data in surveys may differ. With the limited data available, prevalences are not standardised. Self reported surveys may underestimate true prevalence.

*BMI = body mass index*

**Table 3.8** Change in obesity (percentage of adult population with a BMI>30 kg/m<sup>2</sup>) from 1980-2003 in the NAE. Source: OECD Health Data 2006.

	1980	1990	2000	2001	2002	2003
<b>Canada</b>	..	..	14.1	13.9	13.9	14.3
<b>Czech Republic</b>	..	11.2	14.2	14.8	14.8	14.8
<b>Denmark</b>	..	5.5	9.5	9.5	9.5	9.5
<b>France</b>	..	5.8	9	9.0	9.4	9.4
<b>Germany</b>	..	..	11.5	11.5	12.9	12.9
<b>Greece</b>	..	..	21.9	21.9	21.9	21.9
<b>Hungary</b>	..	..	18.2	18.2	18.8	18.8
<b>Italy</b>	..	..	8.6	8.5	8.5	8.5
<b>Netherlands</b>	5.1	6.1	9.4	9.3	10	10.0
<b>New Zealand</b>	..	11.1	17.0	20.9	8.3	20.9
<b>Norway</b>	..	..	6.4	8.3	8.3	8.3
<b>Poland</b>	..	..	..	..	..	..
<b>Spain</b>	..	6.8	12.6	12.6	12.6	13.1
<b>Sweden</b>	..	5.5	9.2	9.2	10.2	9.7
<b>United Kingdom</b>	7.0	14.0	21.0	22.0	22.0	23.0
<b>United States</b>	15.0	23.3	30.5	30.5	30.6	30.6

**Table 3.9** Trade in agricultural products – 2003 (1000\$ US)

	Imports	% World	Exports	% World
<b>World</b>	550,134,581	100	523,884,525	100
<b>Russian Federation</b>	10,993,983	2.0	2,339,450	0.4
<b>North America Developed</b>	67,686,614	12.2	79,902,492	15.3
<b>EU (15) Excluding Intra-Trade</b>	68,197,006	12.4	62,648,810	12.0

**Table 3.10** Net balance of external trade (EU) in meat products. Source: European Commission, Directorate-General for Agriculture.

EU-15	Net balance				Self-sufficiency			
	1 000 t				%			
	2000	2001	2002	2003	2000	2001	2002	2003
1	2	3	4	5	6	7	8	9
Meat <sup>(2)</sup> :								
- pigmeat	1 211	980	1 113	1 130	108.5	107.4	108.6	106.7
- beef/veal	252	157	52	- 89	102.4	112.4	99.9	96.2
- poultrymeat	612	331	555	192	106.8	104.5	106.0	102.2
- sheepmeat and goatmeat	- 271	- 278	- 280	- 289	80.8	78.4	78.9	78.1
- equine meat	- 43	- 107	- 83	- 79	54.9	33.4	38.0	38.4
- other	- 51	- 79	- 17	- 8	95.0	92.1	98.2	99.1
Total	1 710	1 003	1 340	857	105.1	104.5	104.3	102.1
Edible offals	349	331	413	420	118.5	117.3	122.2	122.5
Total	2 059	1 335	1 753	1 277	105.8	105.2	105.2	103.1

<sup>(1)</sup> Exports minus imports.

<sup>(2)</sup> Including live animals, carcass weight equivalent.

Figure 3.1 Erosion on cropland by year in the U.S. Source: USDA-NRCS, 2003b.

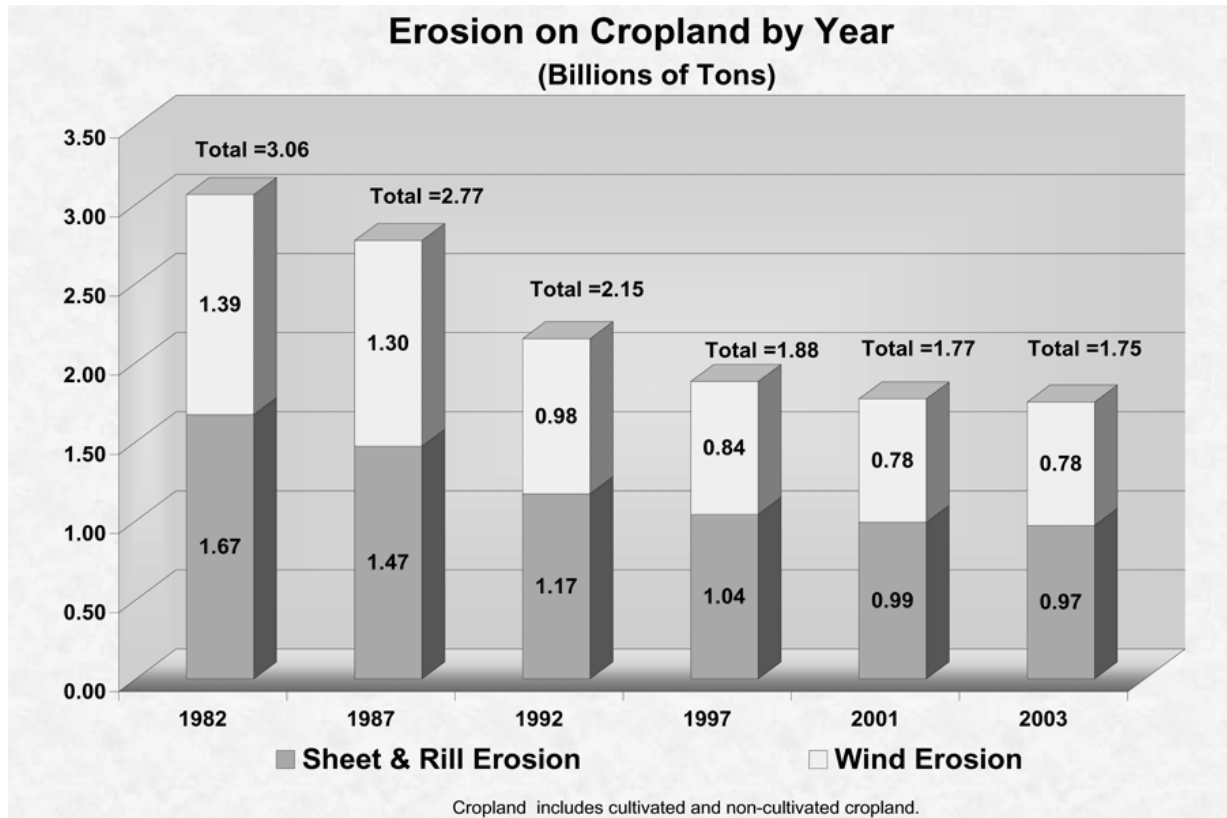
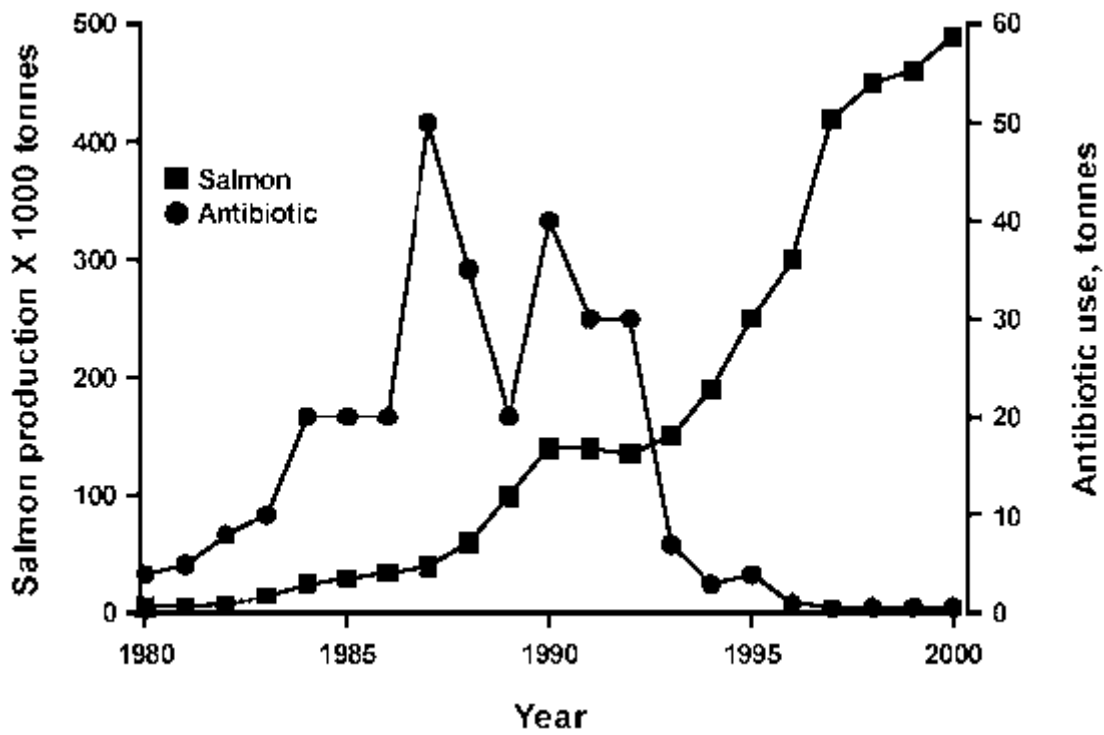
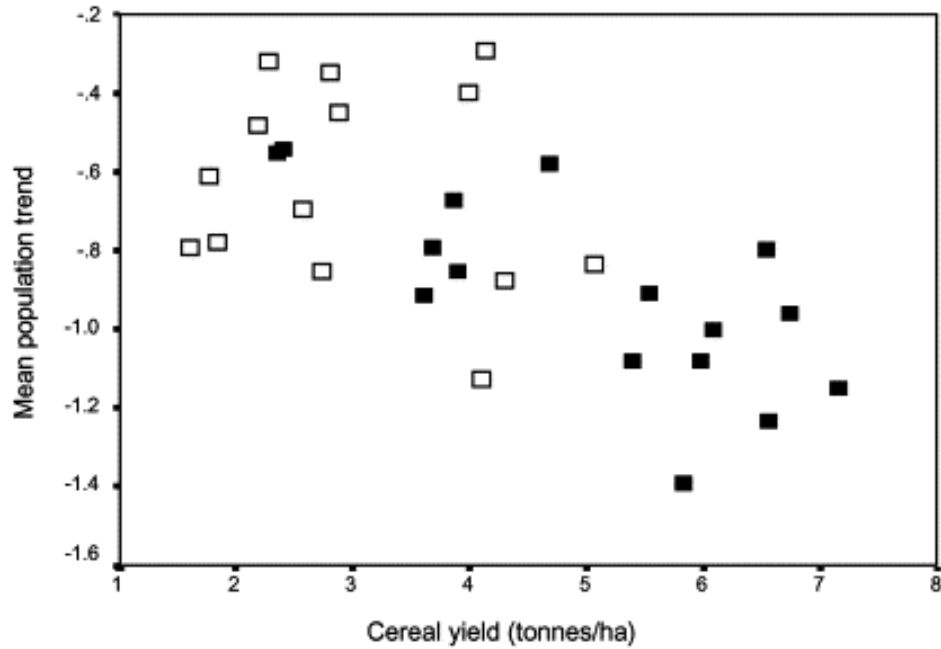




Figure 3.2 Increase in production of farmed salmon and decrease in use of antibiotics in Norway from 1984 to 2000 (modified from Buchmann and Larsen (2001): From Huss, et al., 2003).

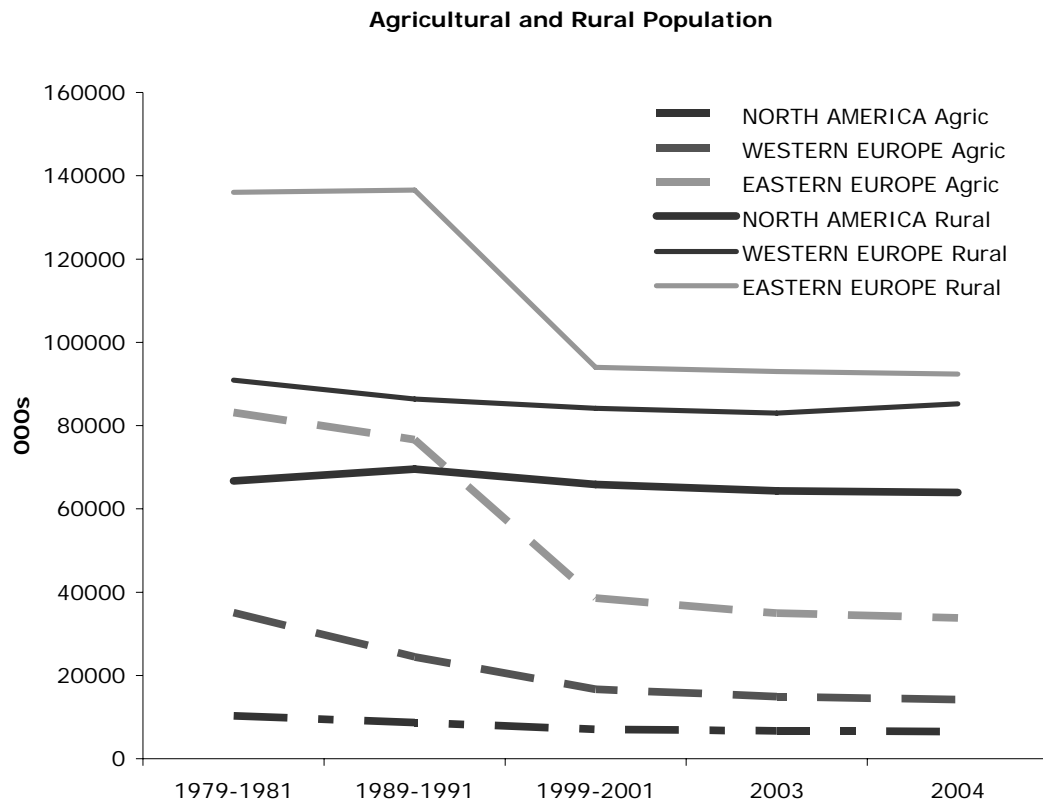


**Figure 3.3** The relationship between mean farmland bird population trend and cereal yield across Europe ( $r_{30}=-0.66$ ,  $P<0.001$ ). Further details are described in Donald et al. (2002).



\* In this figure, only the 39 species whose overall mean population trend and its upper 95% confidence limit were lower than zero are included. Open squares: Eastern Europe, filled squares: EU 15

Figure 3.4 Agricultural and Rural Population in North America and Europe. Source: Data from FAO.



**Figure 3.5** Gross Domestic Product (GDP) per Capita (\$) and agricultural GDP per economically active person in agriculture (2002)

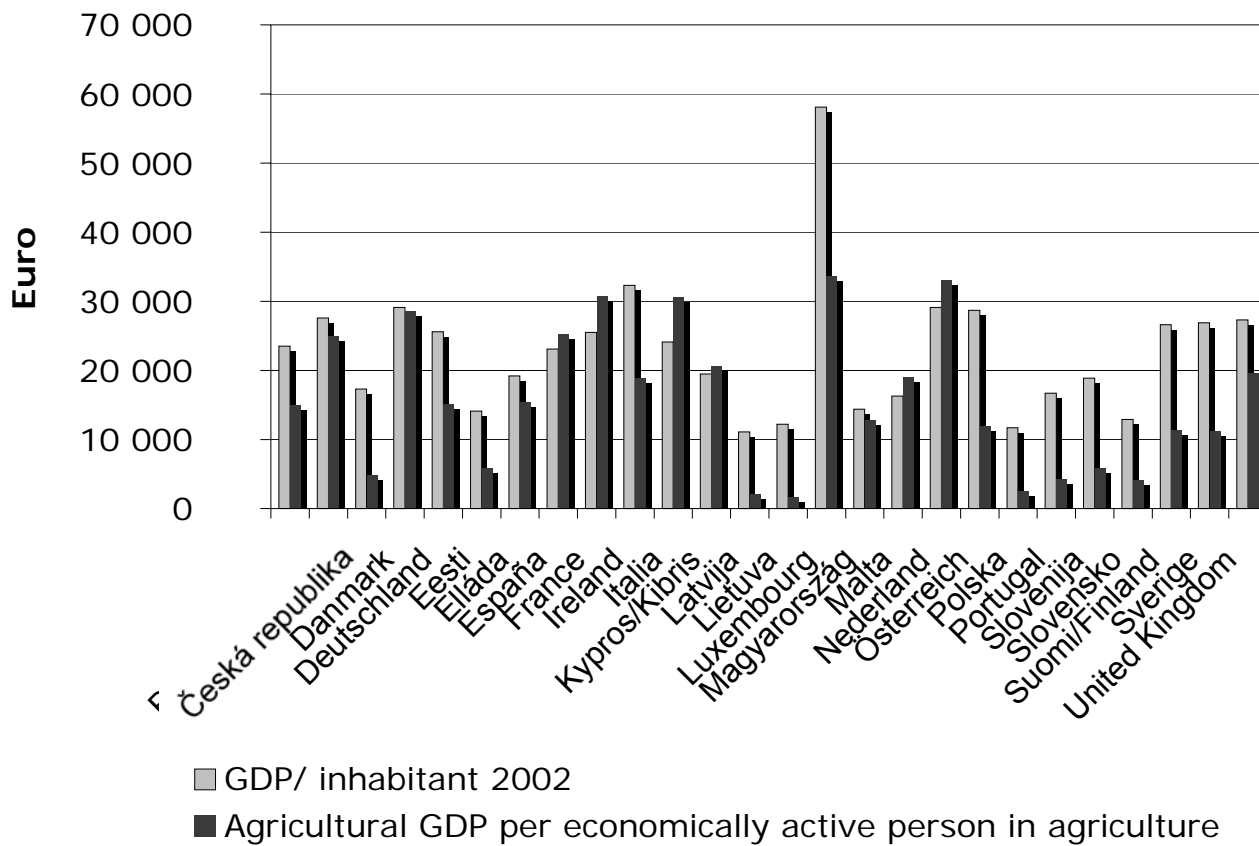


Figure 3.6 Agricultural Imports and Exports in Europe and North America. Source: FAOSTAT, 2004.

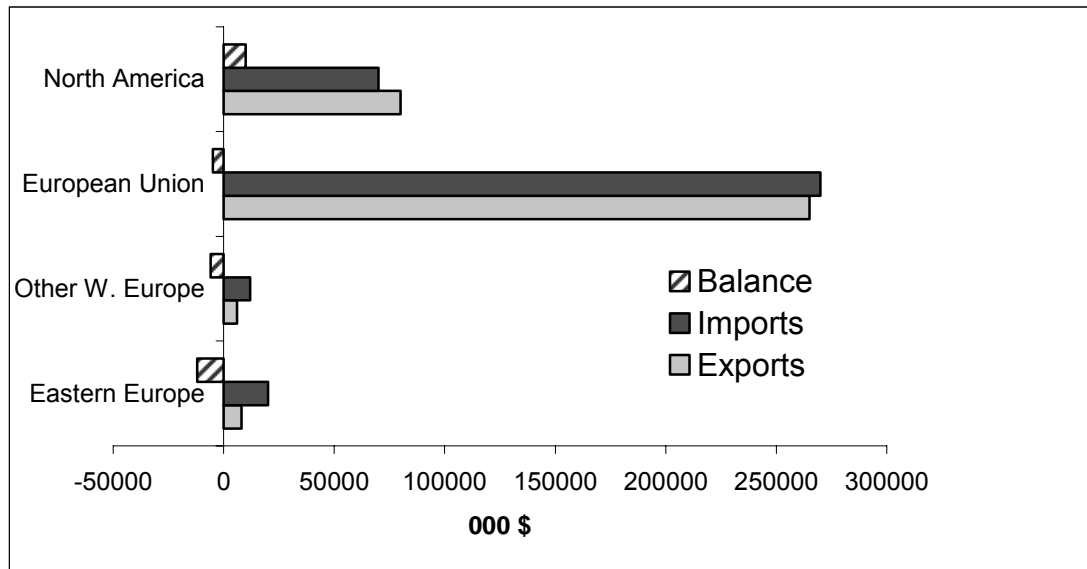
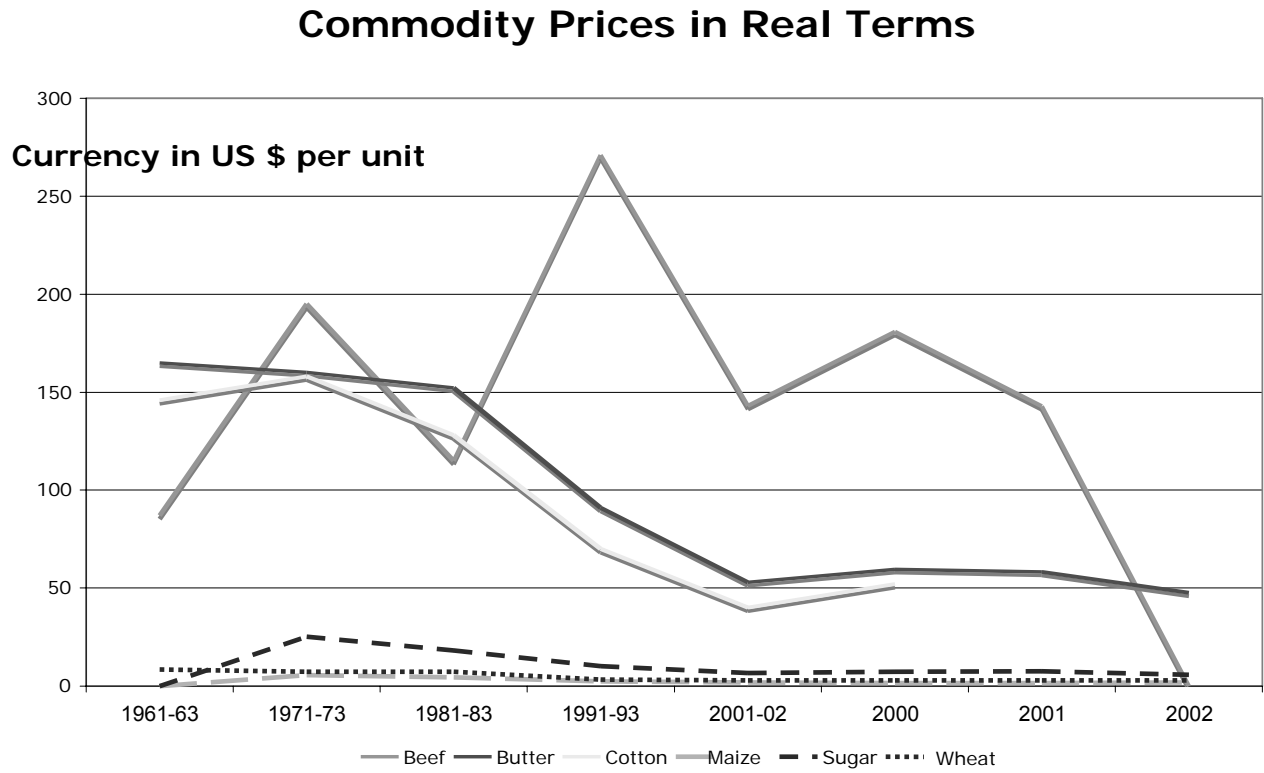


Figure 3.7 Changes in Real Commodity Prices. Source: FAO, 2005



\* Prices are deflated by the United States Consumer Price Index 1995 =100

Figure 3.8 Semi-subsistence farming among New Member States. Eurostat 2003

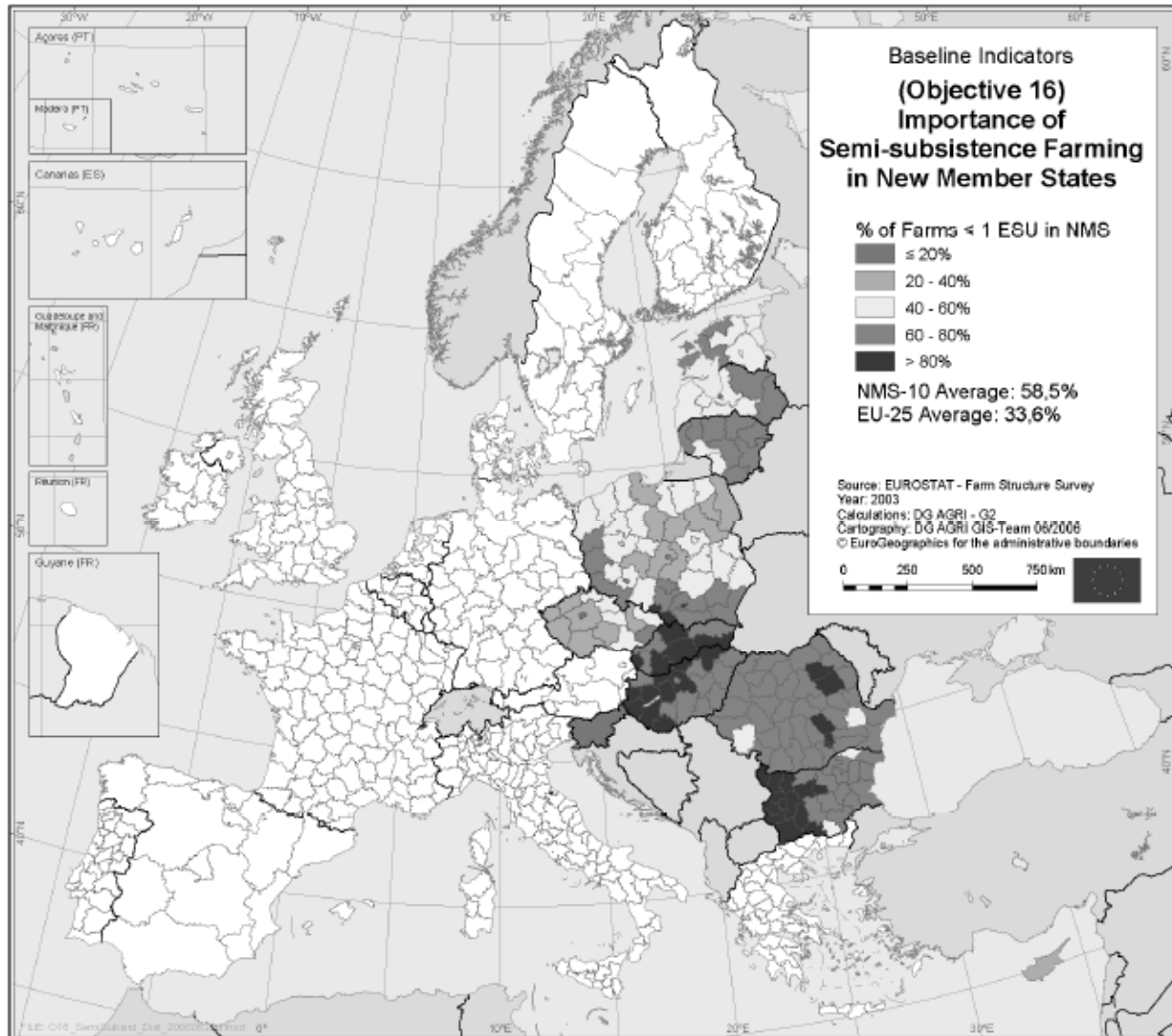


Figure 3.9 Turnover of farmer-controlled businesses as percentage of agricultural output. Source EFPF

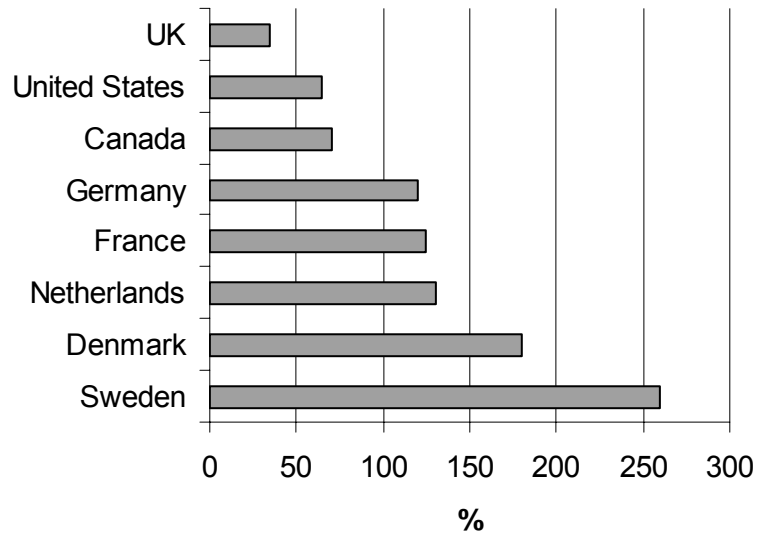




Figure 3.10 Producer and Consumer Support Estimates as measures of support for agriculture. Source: OECD 2004

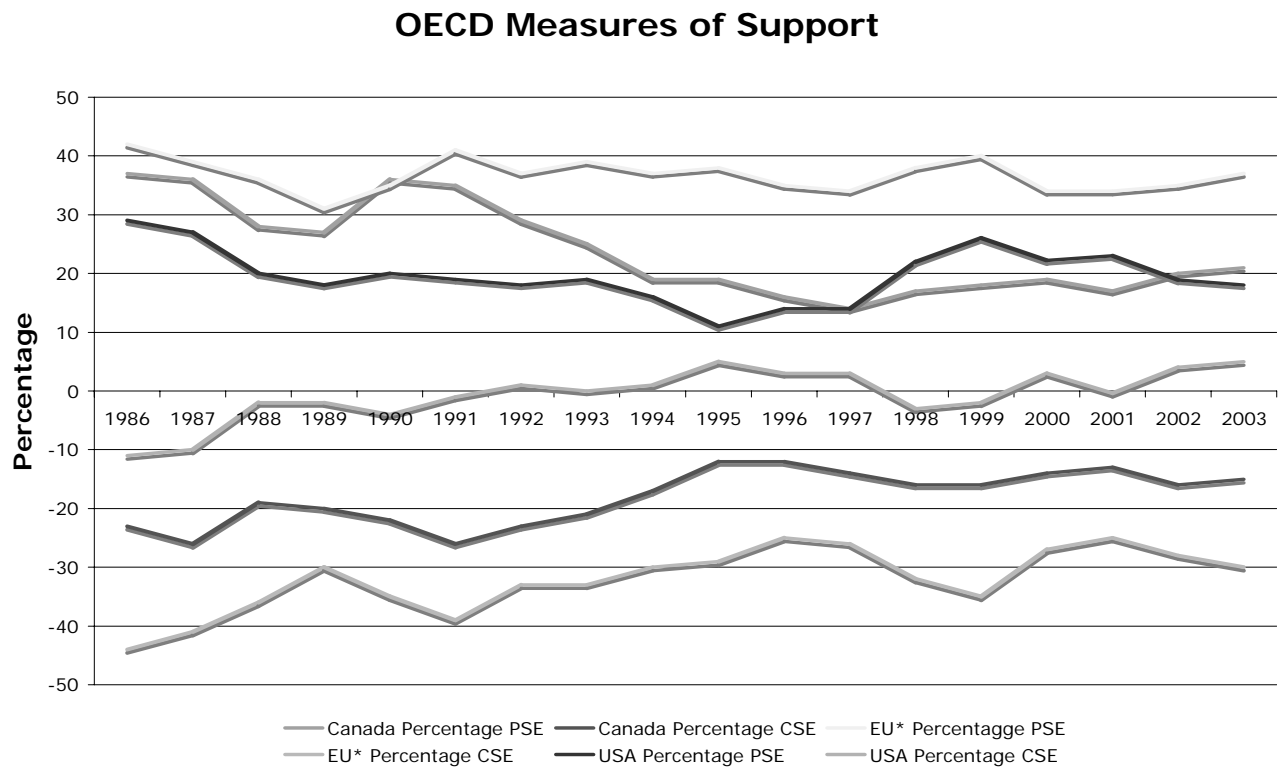


Figure 3.11 Support for farming in the Soviet Union and Russia. Source: OECD

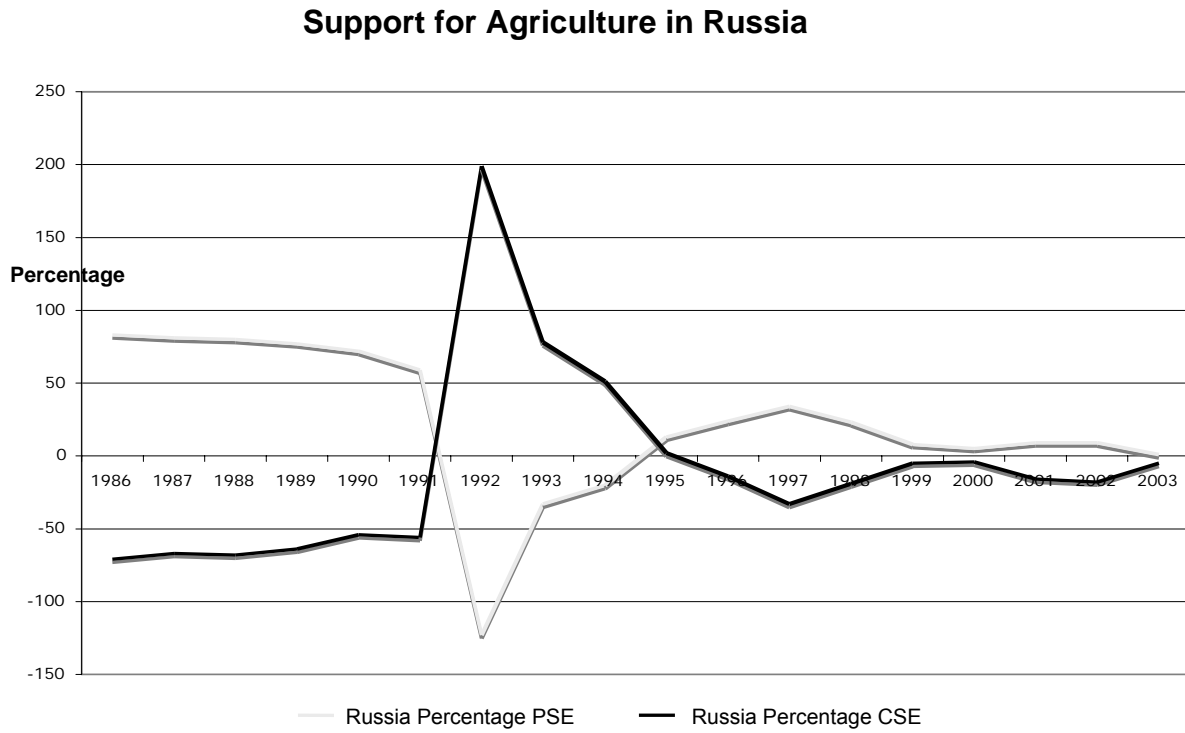


Figure 3.12 Accident frequency rate, i.e. number of accidents per one million man hours worked in Swedish forestry (1967 to 1995)

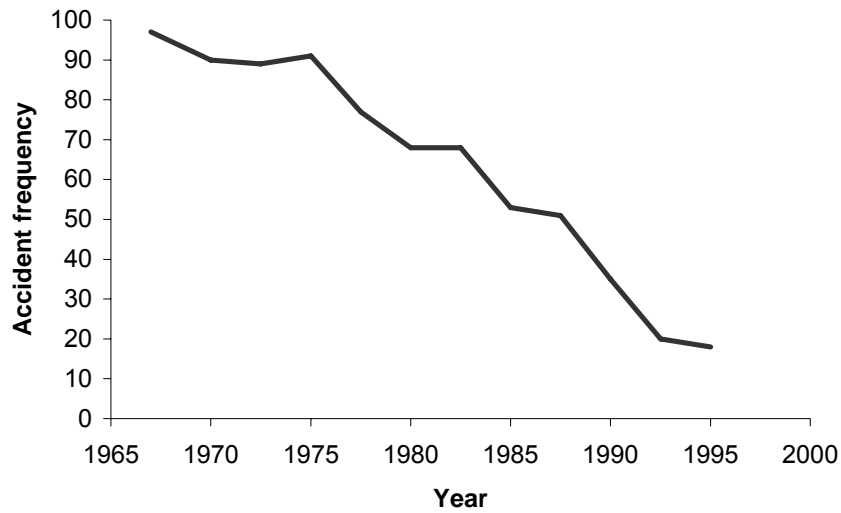


Figure 3.13 Rising prevalence of overweight children in NAE. Source: International Obesity Task Force, 2005

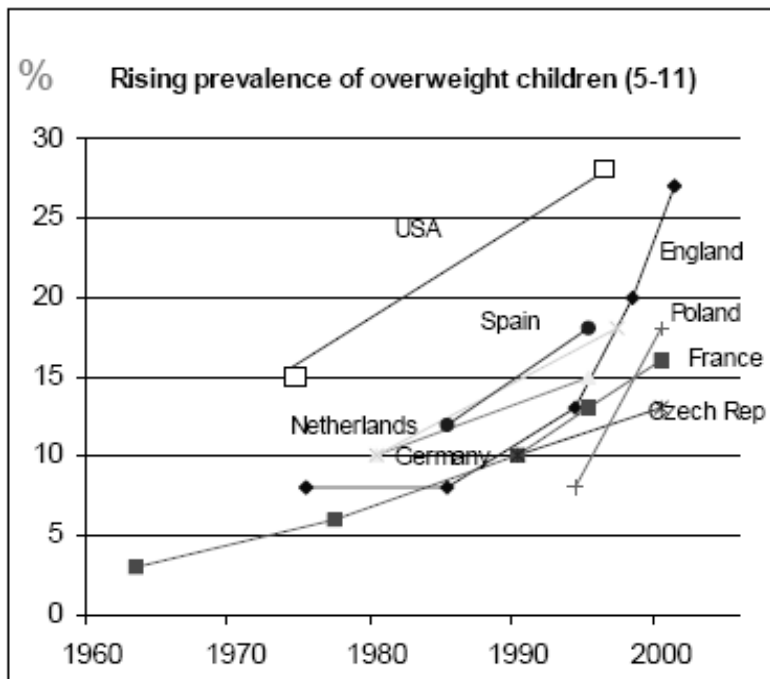
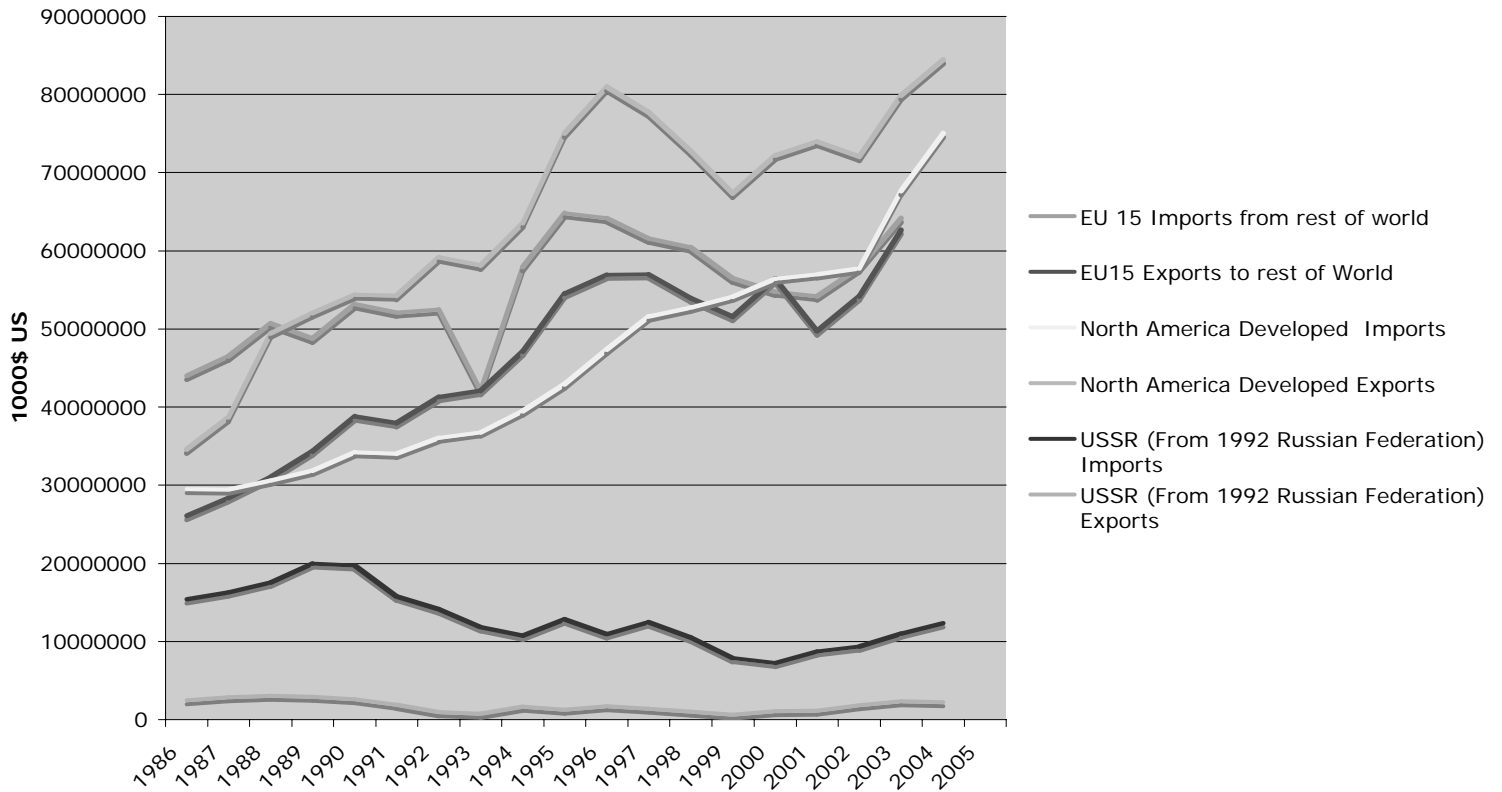


Figure 3.14 Trade (imports and exports) in NAE from 1986-2004.



**Figure 3.15** EU Agricultural imports and exports (Source: European Commission: Eurostat and Directorate-General for Agriculture)

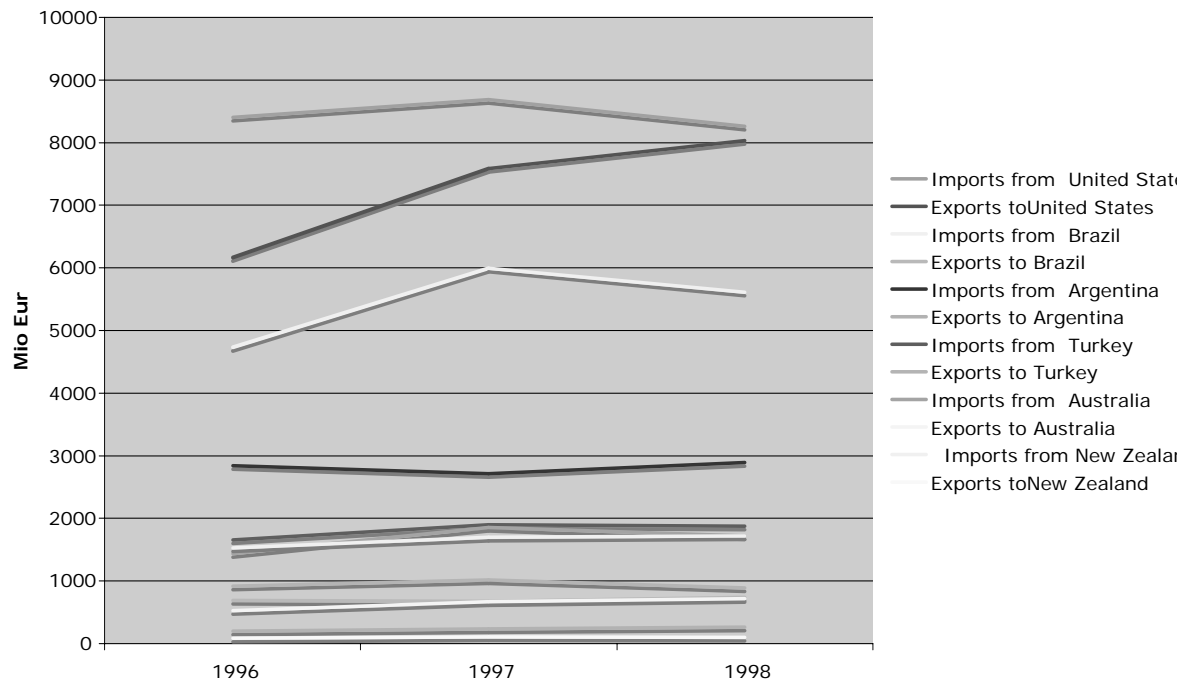


Figure 3.16 U.S. Exports Destinations from 1989-2005. Source ERS/USDA.

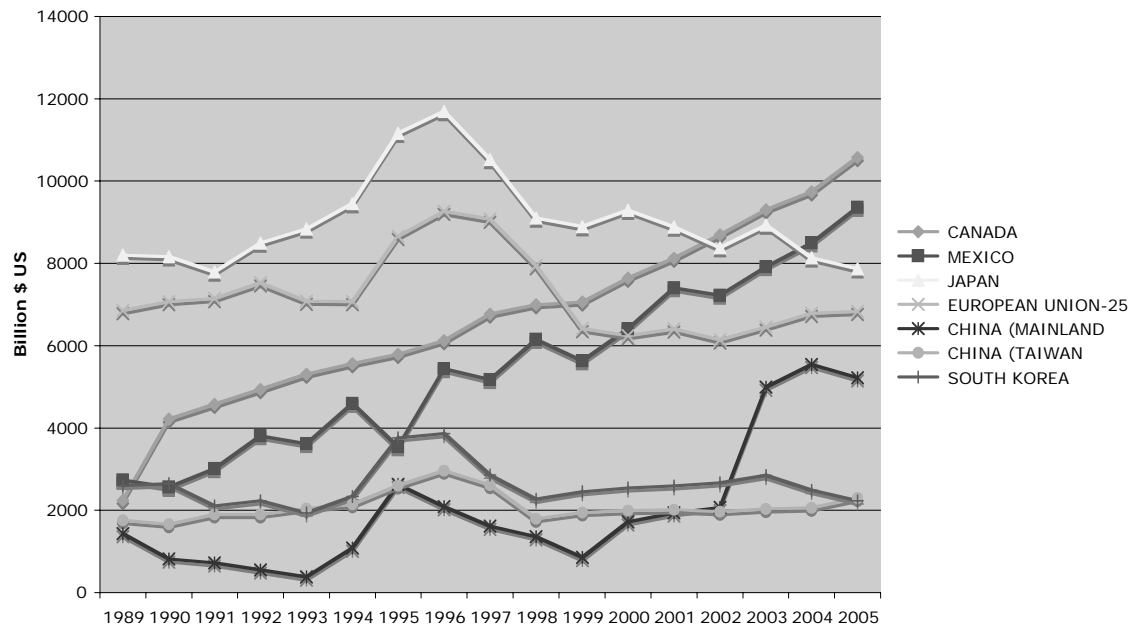


Figure 3.17 U.S. Imports of Agricultural Products 1989-2005. Source: ERS/USDA

